R E P O R T R E S U M E S

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A COMPREHENSIVE STUDY FOR THE MASTER DEVELOPMENT PLAN, POLK JUNIOR COLLEGE, WINTER HAVEN, FLORIDA.

BRIGHT AND STRAUGHN ARCHITECTS, LAKELAND, FLA.

POLK COUNTY BOARD OF PUBLIC INSTRUCTION, FLA.
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THE HISTORY, PHILOSOPHY, OBJECTIVES, APPROACH AND BASIC DESIGN CONCEPTS FOR POLK JUNIOR COLLEGE. INCLUDED ARE SECTIONS RELATING TO SITE INVESTIGATION, UTILITY PLANNING, TRAFFIC STUDY, PARKING CONSIDERATIONS, PHASING OF MASTER PLAN AND COST ANALYSIS. SCHEMATIC DRAWINGS AND AERIAL PHOTOS ILLUSTRATE CAMPUS BUILDING RELATIONSHIPS AND COMMUNITY RELATIONSHIPS TO THE CAMPUS. THE FACILITIES DEVELOPMENT PROGRAM IS SEPARATED INTO FOUR SEQUENTIAL PHASES WITH PROJECTED COSTS SHOWN FOR EACH PHASE OF THE BUILDING PROGRAM. (FO)

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POLK JUNIOR COLLEGE

PLAN

a comprehensive study for the

MASTER DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

Winter Haven, Florida

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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FOR:

THE BOARD OF PUBLIC INSTRUCTION

FOR THE COUNTY OF POLK

FOR THE STATE OF FLORIDA

BY:

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HEALY & HARGAN, INC.

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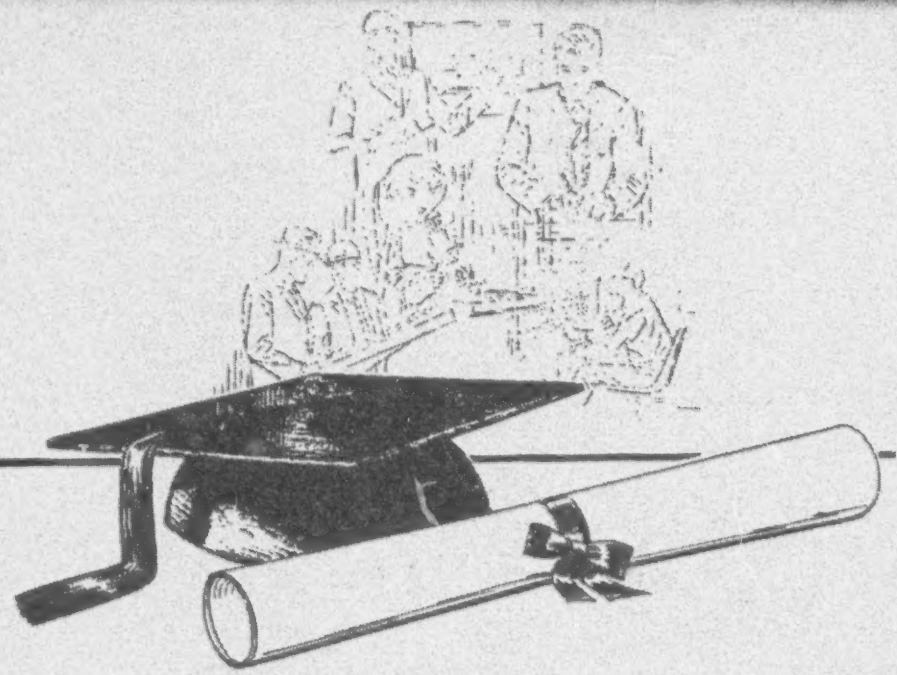
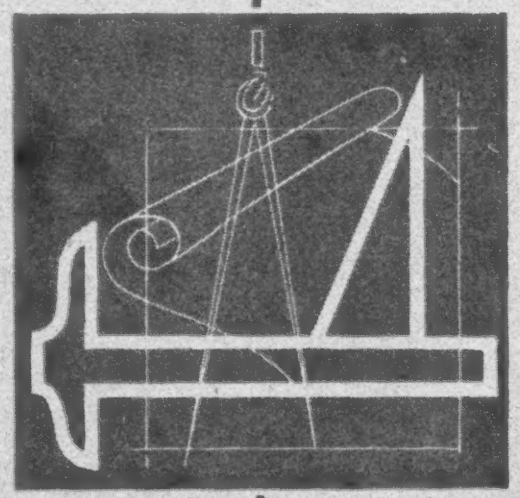


A BLUEPRINT FOR

LEARNING



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HISTORY

Polk Junior College had its beginning in January, 1961, when the Board of Public Instruction of Polk County instructed Superintendent Shelley S. Boone to initiate action leading to the establishment of a junior college in Polk County. Funds were included in the Board's 1962-63 Budget for the purpose of making a survey of the County to determine the need for the College. The 1963 Legislature appropriated the planning money necessary to start the College. The citizens of Polk County voted an additional one-half mill ad valorem tax to support the College.

In December, 1963, Dr. F. T. Lenfestey was appointed President and the College was temporarily housed in rented quarters at the Bartow Air Base.

The College opened with 1,107 students and 34 full-time faculty members in September, 1964.

Based on the State Department of Education Survey Team's findings, the School Board located the permanent campus in Winter Haven, Florida. The city of Winter Haven donated the Municipal Golf Course of 98.6 acres for the main College site.

The School Board appointed the firm of Bright & Straughn, Architects, of Lakeland, Florida to design the permanent campus. The Architects, working with the faculty and administration of the College, developed Educational Specifications for a Master Campus Plan.

The 1965 Florida State Legislature appropriated $3,266,756 for the First Phase of construction on the Winter Haven site.

PHILOSOPHY

In the belief that Education in a democratic society is for all who strive for a more meaningful life in a changing world community, Polk Junior College has been established to provide the citizens of Polk County and surrounding areas with an outstanding institution of higher education, the College is committed to:

Academic Excellence
Personal Growth
Cultural Development
Employment Orientation

OBJECTIVES

In keeping with the legislative enactment of 1963 which authorized Polk Junior College, the objectives of the College are to provide:

1. A general educational base for all students which will serve to enrich their cultural and intellectual understanding and appreciation.
2. Freshman and sophomore years of college work parallel to that offered in a four-year senior institution.
3. Curricula of a technical-vocational nature.
4. Credit and non-credit courses of a continuing educational nature.
5. Educational programs of a community service nature.
6. Guidance, counseling and personnel services.

Chairman of The Board Of Public Instruction
Discusses Master Plan

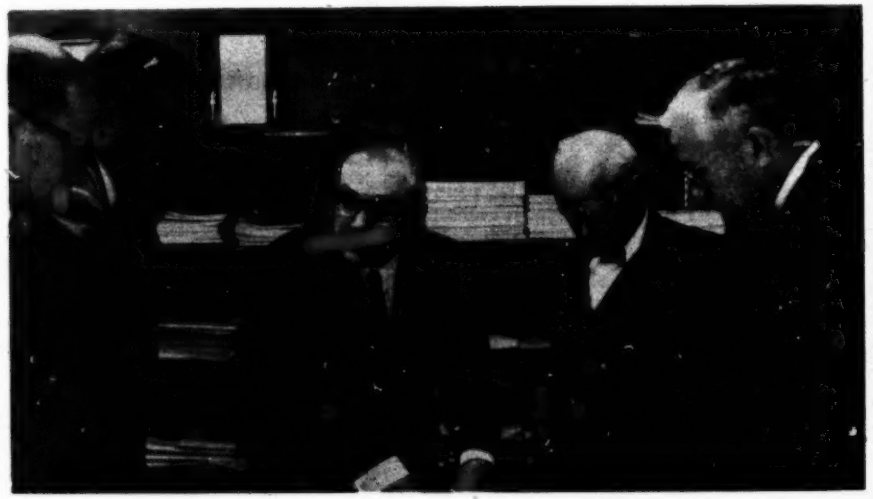
Mr. Austin T. Race, Jr., Chairman, seated in center, reviewing planning with the Architects, Superintendent of Public Instruction, and President of Polk Junior College.

The Board Of Public Instruction For The County Of Polk

Shown above are members of the Board, except Mr. Austin T. Race, Jr., Chairman, who was not present when this photograph was taken. Seated, left to right, are Mr. Wendell H. Watson, Mr. Walter O. Gibson, Jr., Mr. Seth G. McKeel, Mr. W. Ralph Durrance, and Mr. Shelley S. Boone, Superintendent of Public Instruction.

The Polk Junior College Advisory Committee
Meets In Planning Session

Seated, left to right, are Mr. Shelley S. Boone, Superintendent of Public Instruction, Mr. Merrill E. Grafton, Dr. Allen T. Cole, Chairman, and Mr. Lorin T. Bice. Standing, left to right, are Dr. Fred T. Lenfestey, President of Polk Junior College, Mr. John C. Johnston, Mr. E. Randolph Bentley, and Mr. A. Ernest Straughn, Architect.



Planning Group With Consultant

Dr. Kenneth L. Skaggs, center, Technical Education Advisor with the American Association of Junior Colleges, makes suggestions to the group. From left to right are Mr. A. Ernest Straughn, Architect, Dr. Fred T. Lenfestey, President of Polk Junior College, Dr. Skaggs, Mr. Braxton L. Bright, Architect, and Mr. James E. Harris, Director of Development for Polk Junior College.

APPROACH TO PLANNING

PROBLEM: Many young (and old) persons ready and eager for learning - -

ASSETS: A small but highly trained and experienced faculty - -

An architectural firm with experience in designing suitable structures for the learning process - -

SOLUTION:

Getting Started

(1) The faculty begins by determining and putting into writing their philosophies of education. A specific statement of the activity to be carried on in each space is clearly stated in writing. This constitutes the development of educational specifications for each area.

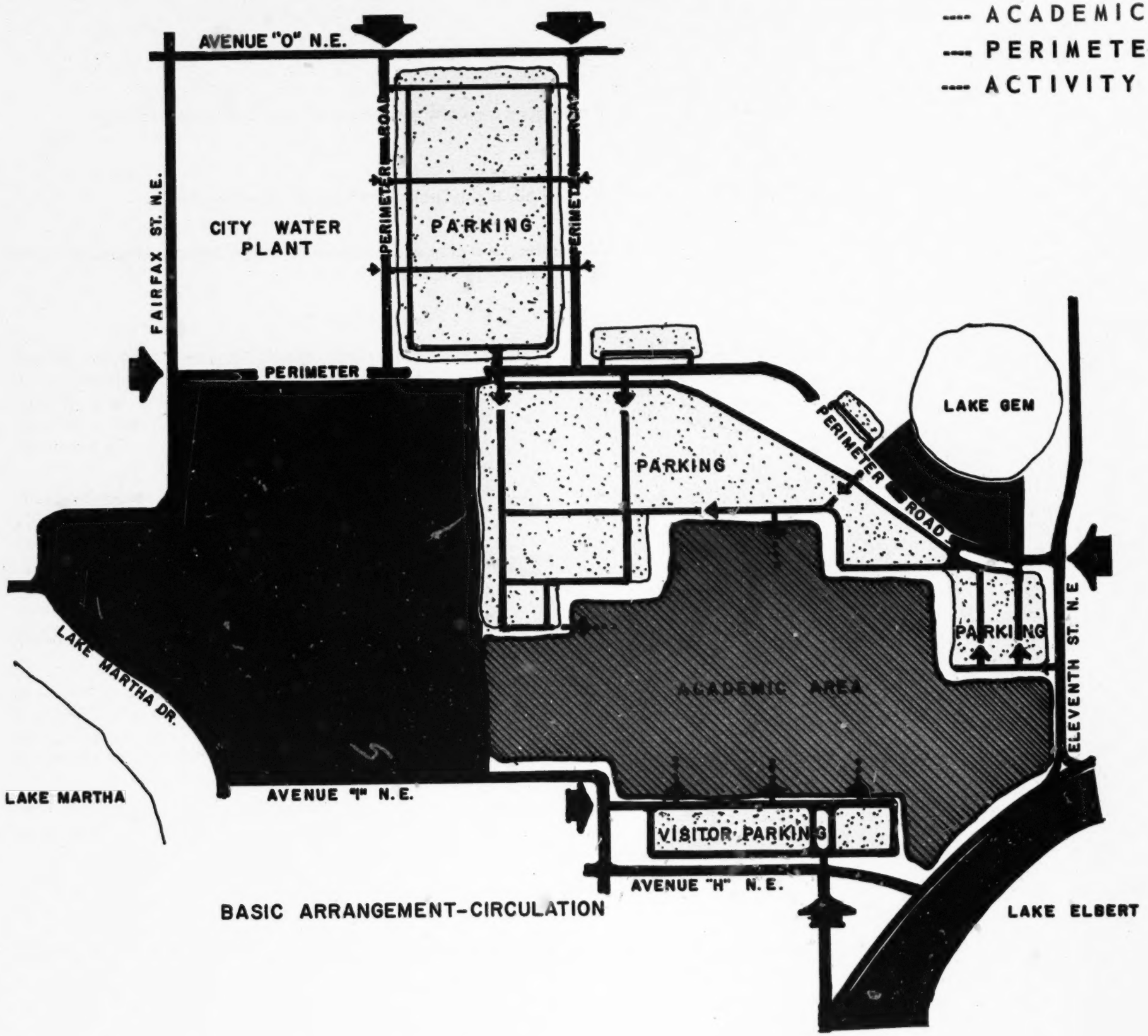
(2) A determination of the financial resources available for the various phases of construction is made according to an accepted state formula. (All construction funds come from state sources.) The total number of students enrolled is directly related to funds provided for each stage.

(3) The architects design spaces to accommodate the projected activities.

(4) The faculty reviews, makes suggestions and recommendations. Final sketches are approved by the Polk Junior College Advisory Committee and the Polk County Board of Public Instruction before submitting to state officials.

(5) Architects proceed with investigations of area traffic patterns, utilities, subsoil and first phase design concepts.

Note: Copies of the Educational Specifications for Polk Junior College are available from the College.



BASIC ARRANGEMENT-CIRCULATION

BASIC CONCEPTS FOR DESIGN

General direction for evolvement of the master plan was a joint effort between the College personnel, the Polk Junior College Advisory Committee, the Board of Public Instruction, and the Architects. Construction funds will be available from the State of Florida Revenues over a period of time, thus only a part of the plan may be implemented at any one time.

Basic assumptions relating to the master design follow:

1. The first campus will be designed for a maximum of 5,000 full-time students. When Student loads exceed this number, branch campuses will be considered.

2. A commuting college must provide for parking on a ratio of 1 parking place for each two students present on campus at any one time.

3. Provision for student study and recreation outside of class must be made for a commuting student body who will remain on campus throughout the day.

4. Study areas should be provided for students "between" the extreme silence of the library and the extreme noise of the student center.

5. An expanded core concept will prevail with large major buildings built around small, highly-landscaped courtyards. Students should be able to walk from one end of the academic area to the other within a ten minute period.

6. Students should be able to visit all buildings without crossing major traffic arteries. Walks should be covered for shelter from rain and sun.

7. Buildings should have maximum flexibility for future educational innovations. Proposed year-round use demands climate control in all areas.

8. All utilities should be placed underground.

9. Faculty should have individual offices (even if small). Efforts will be made to spread faculty offices throughout the buildings to provide control as well as accessibility to students and classroom areas.

10. Buildings should be built to their full size while under construction to eliminate increased costs of "add-on" areas. Study should be made of immediate use. Large structures may be filled, initially, with many diverse activities which will be moved to other buildings as the campus develops.

An ever-present limiting factor in design will be the continuing need for space with a limitation on money to build the space. A calculus exists for esthetic beauty as compared to a square-foot cost. Repetitive construction techniques are anticipated to reduce costs while maintaining quality.

The design of the campus should convey a feeling of dignified beauty incorporating reasonable cost with a modified modern architectural concept.

AERIAL VIEW OF SITE

FOUNDATION INVESTIGATION

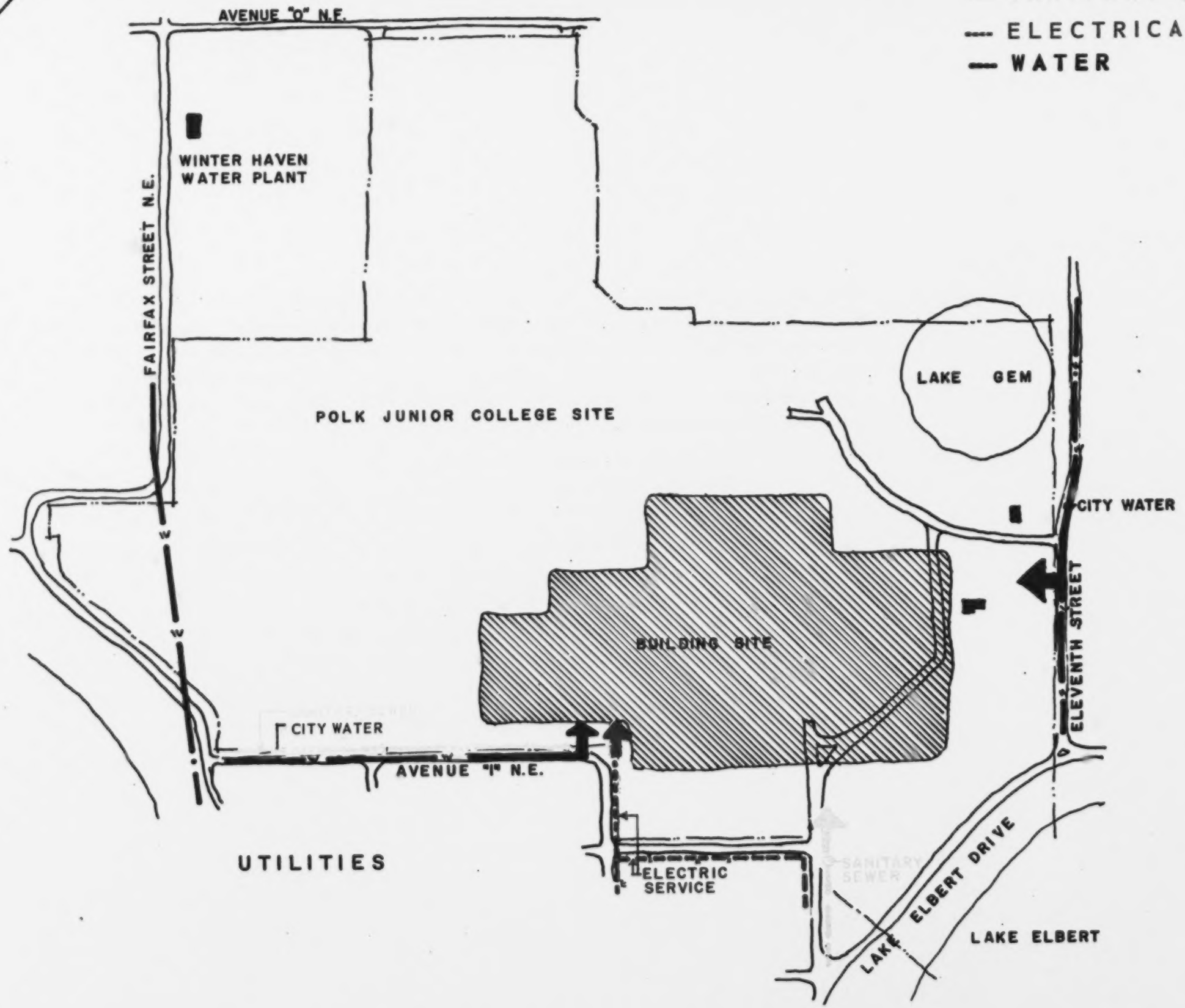
Polk County contains many beautiful lakes which could be the result of historic land settlement. There is also a known history of sinkholes, thus it is appropriate to explore sub-surface strata to determine load bearing ability of the site. The Florida Testing Laboratories of St. Petersburg, Florida, were employed to perform exploratory borings on a grid pattern over the area with at least one boring on the location of each proposed buildings. Specifically, the Florida Testing Laboratory was charged with the responsibility of investigating:

Possibility of sinkhole development
Sub-surface strata and characteristics
Suitability for supporting major buildings

The laboratory reported satisfactory subsoil characteristics for the construction of at least three-story buildings, and possibly higher construction with further investigation. Foundation loads of 3,500 pounds per square foot were found to be satisfactory.

The possibility of sinkhole development appears remote in that the sub-surface encountered and the characteristics of these strata are such as to indicate no cause for concern over this danger.

It is recommended that a vibratory compactor be used after footing excavations have been completed because of the mantle of sand and clay over-laying other formations.


AVENUE "O" N.E.
WINTER HAVEN
WATER PLANT
FAIRFAX STREET N.E.
POLK JUNIOR COLLEGE SITE
LAKE GEM
CITY WATER
BUILDING SITE
ELEVENTH STREET
CITY WATER
AVENUE "I" N.E.
ELECTRIC
SERVICE
ELBERT DRIVE
LAKE ELBERT
LAKE
UTILITIES
ELECTRICAL
WATER

UTILITIES

WATER & SEWERAGE

An exploration of the effect of instituting a small city within a larger one was undertaken to anticipate needs for power and water as well as disposition of trash and sewerage. Studies were undertaken with the city of Winter Haven to determine the city's capacity to supply sufficient water to the site. Water mains of adequate size exist and one of the main pumping stations adjoins the campus site, in fact, easements for wells and connections were included in the basic deed of land for college use. Location of water taps into the existing city system was easily accomplished.

Sewerage calculations for the first phase and following phases showed the present city system to be adequate. The city's master plan includes projections for larger mains which will be in place prior to completion of the entire campus on the Winter Haven site.

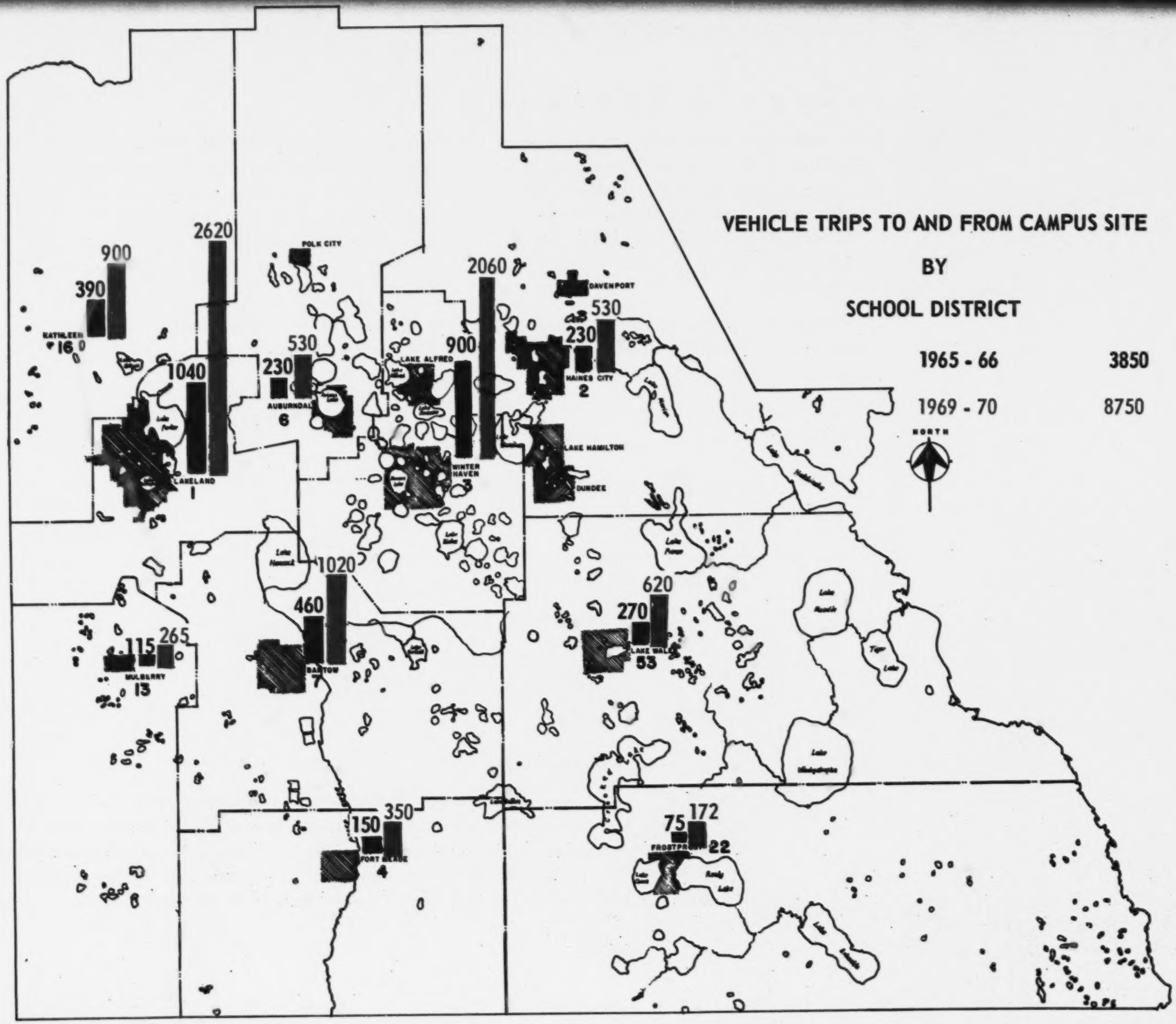
Trash and garbage pick-up can be handled through the present organization staffed by city employees.

POWER & CLIMATE CONTROL

The concept of total energy production from natural gas as compared to purchased electrical power was explored by the consulting engineering firm of Healy and Hargan of Tampa. Factors considered in determining the better system were:

Estimated load
Horsepower of equipment and demand schedule
Rates of gas vs electricity
Capital outlay costs
Maintenance costs
Reliability
Waste heat recovery

After extensive analysis, the engineers concluded that purchased electricity would be of less cost initially and that a central equipment room for the entire campus would provide the most economical climate control in the long range. Since portions of the completed campus would be heated while other portions would require cooling and at the same time, the four-pipe loop system was proposed using chilled and heated water as the medium for climate control in occupied areas.



VEHICLE TRIPS TO AND FROM CAMPUS SITE

BY

SCHOOL DISTRICT

1965 - 66	3850
1969 - 70	8750

NORTH

TRAFFIC STUDIES

The College philosophy of making education available to all persons in Polk County necessitates a careful analysis of access to the campus from all parts of the County.

The consulting firm of Donald W. Barry and Associates of Orlando was employed by the designers to analyze the routes of approach to the campus.

Traffic flow characteristics of the major traffic routes in the city of Winter Haven as well as major and secondary routes in the campus area were carefully surveyed and analysed in light of the following factors: population increase, greater awareness of higher education and increased usage of the motor vehicle.

This data and data from a study of "vehicle trips to and from the campus site" were combined to determine projected travel characteristics of existing street systems and to determine the existing sufficiency or adequacy of the route for such projected vehicular travel.

The points of relative congestion were noted and all the various routes sampled were considered tolerable with two major exceptions:

1. U. S. 17 from Avenue "B" N.W. to Avenue "K" S.E.
2. Sixth Street S.E. from campus site to Avenue "R"

It was suggested by the consultants that students approaching the campus enroute from the south would select an alternate route away from the U. S. 17 point of congestion and if possible also avoid 6th Street S.E., particularly in the morning school period when maximum bus loading congestion (at the high school and elementary school on 6th Street) is prevalent.

Recommended Street Improvements in the City of Winter Haven

Streets considered to be insufficient for projected traffic volume and which must be improved in alignment, width and driving surface include:

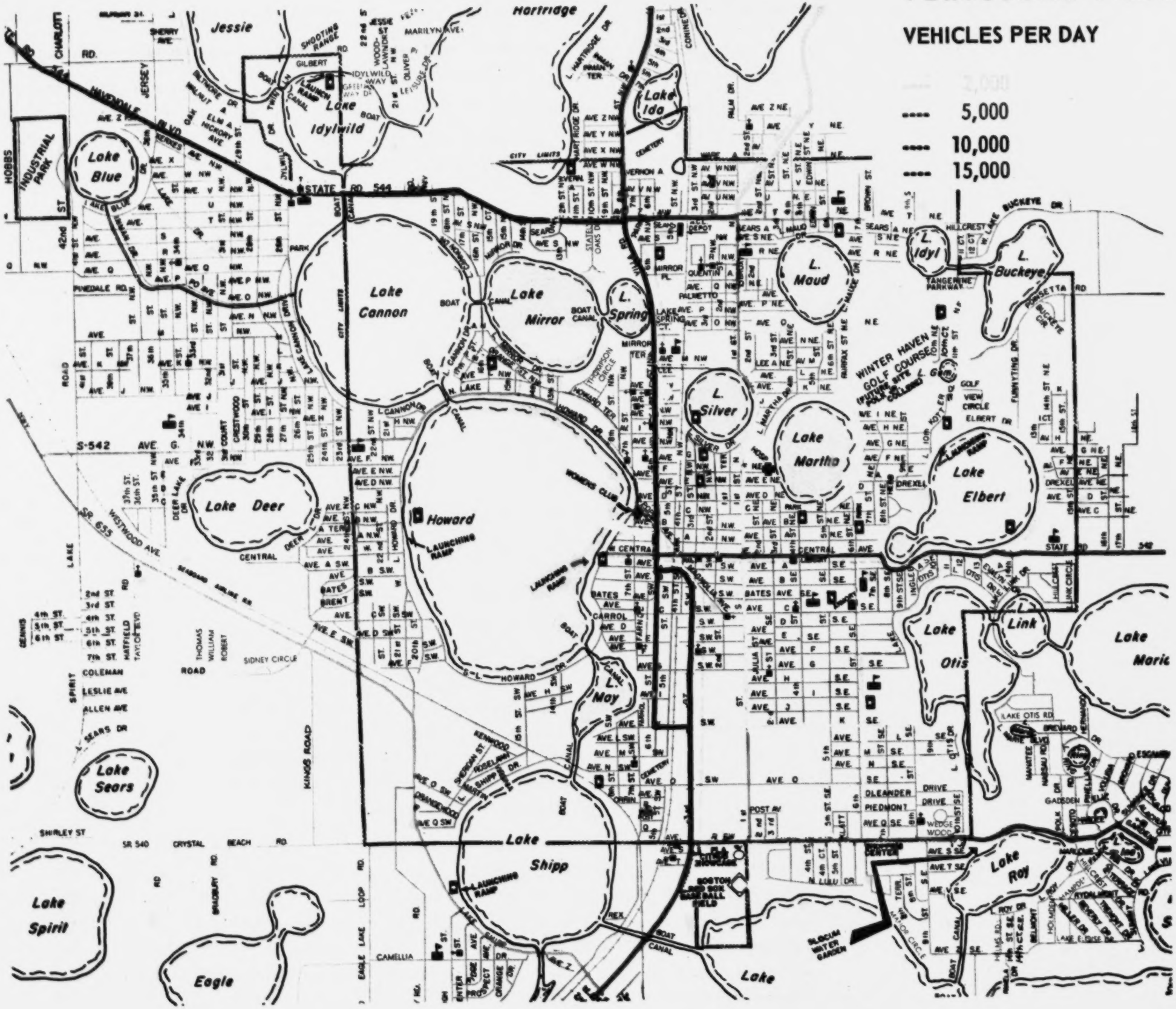
A. 11th Street from Lake Elbert to Avenue "T"
B. 7th Street and Fairfax Street from campus site to Avenue "T"
C. Avenue "M" connecting to Lake Silver Drive and Avenue "K" from N.W. 6th Street to campus site
D. Avenue "I" N.E. contiguous to the south property line of the campus site
E. Lake Martha Drive and 6th Street S.E. from campus site to Avenue "R" (Cypress Gardens Road)

Also suggested were the realignment of Fairfax Avenue at its southern terminus with Lake Martha Drive to eliminate the severe dogleg and complete a planned major entry point to the campus; and to realign Avenue "H" in order to provide a channelized entry from Lake Elbert Drive. The consultants stated that: "Channelization of the above mentioned and other campus entry points which are planned both on the north and west boundaries of the campus is considered essential to provide maximum efficiency of ingress and egress as well as provide for the safety and welfare of the drivers using these entries".

VEHICULAR FLOW MAP

VEHICLES PER DAY

---- 5,000
---- 10,000
---- 15,000

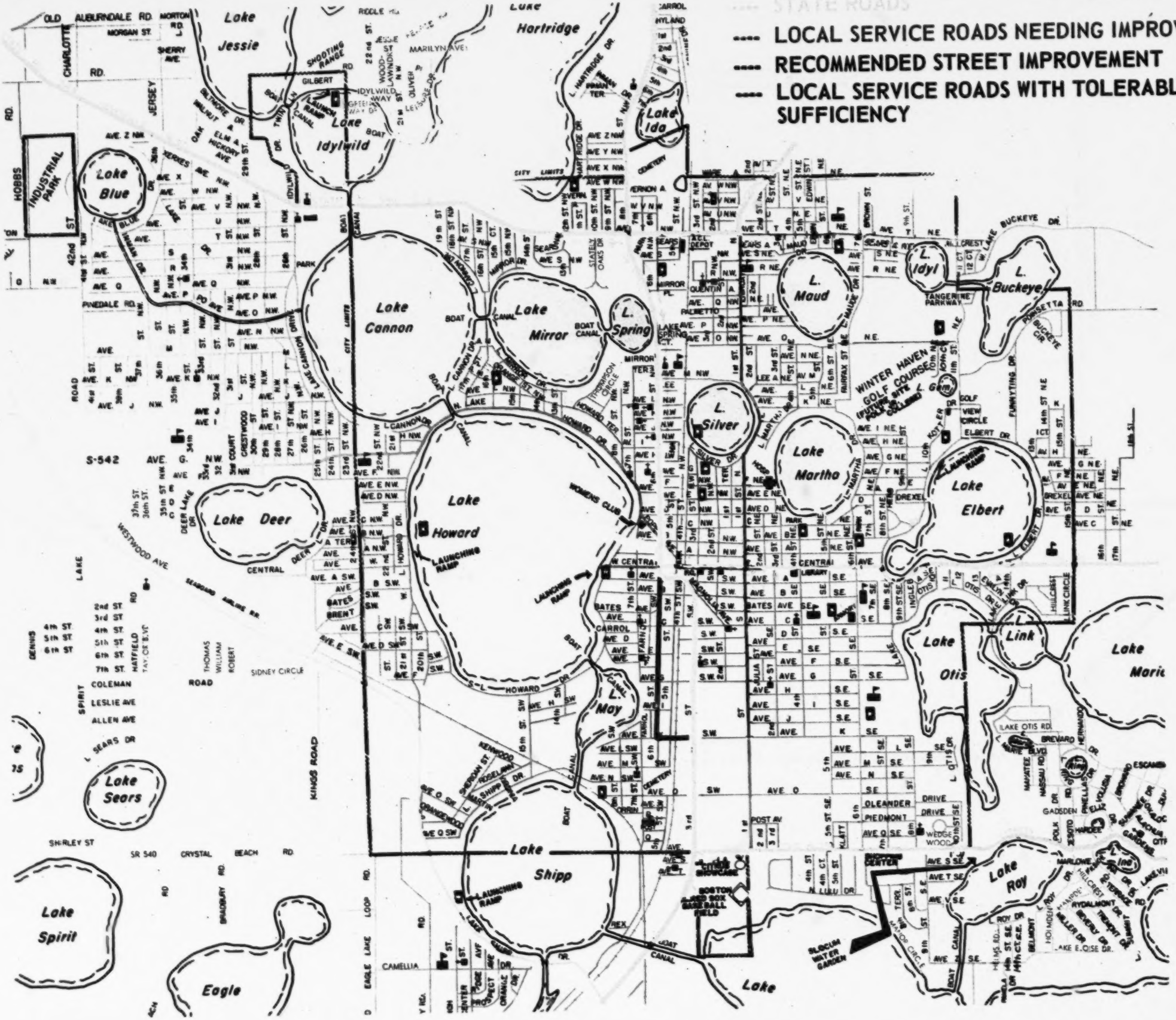


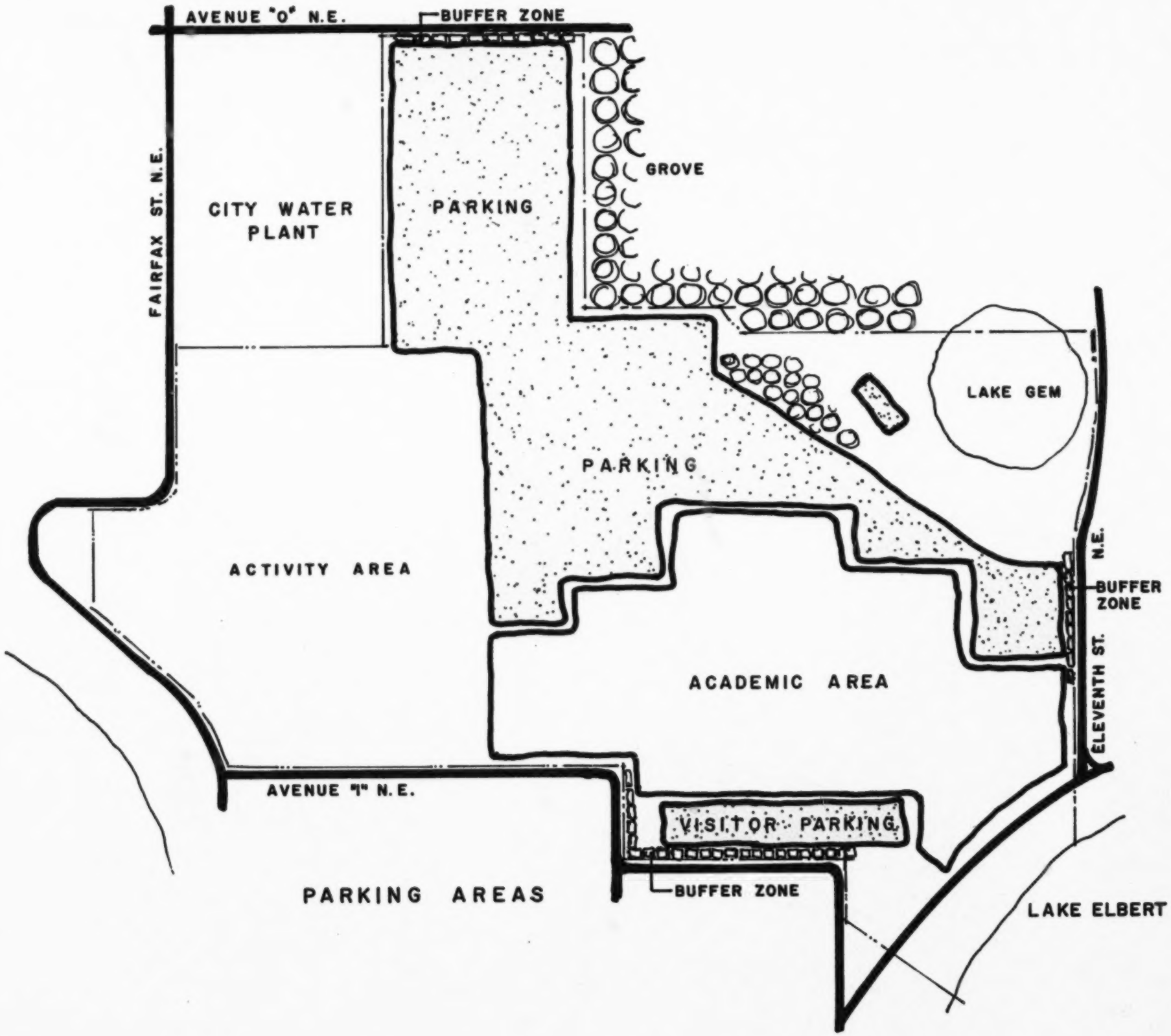
---- STATE ROADS

---- LOCAL SERVICE ROADS NEEDING IMPROVEMENT

---- RECOMMENDED STREET IMPROVEMENT

---- LOCAL SERVICE ROADS WITH TOLERABLE SUFFICIENCY




AVENUE "O" N.E.
BUFFER ZONE
FAIRFAX ST. N.E.
CITY WATER PLANT
PARKING
GROVE
LAKE GEM
PARKING
ACTIVITY AREA
ACADEMIC AREA
BUFFER ZONE
ELEVENTH ST. N.E.
AVENUE "I" N.E.
VISITOR PARKING
BUFFER ZONE
PARKING AREAS
LAKE ELBERT

PARKING

An adequate number of parking places will be included for long-range planning. Projections were made which included the following considerations:

*** There is no public transportation system in this area.

*** The maximum students to be served at the Winter Haven site.

*** The greatest number of students and faculty members on campus only in the evening, and attend only one night per week.

*** Parking Turnover.

*** Average occupancy per vehicle.

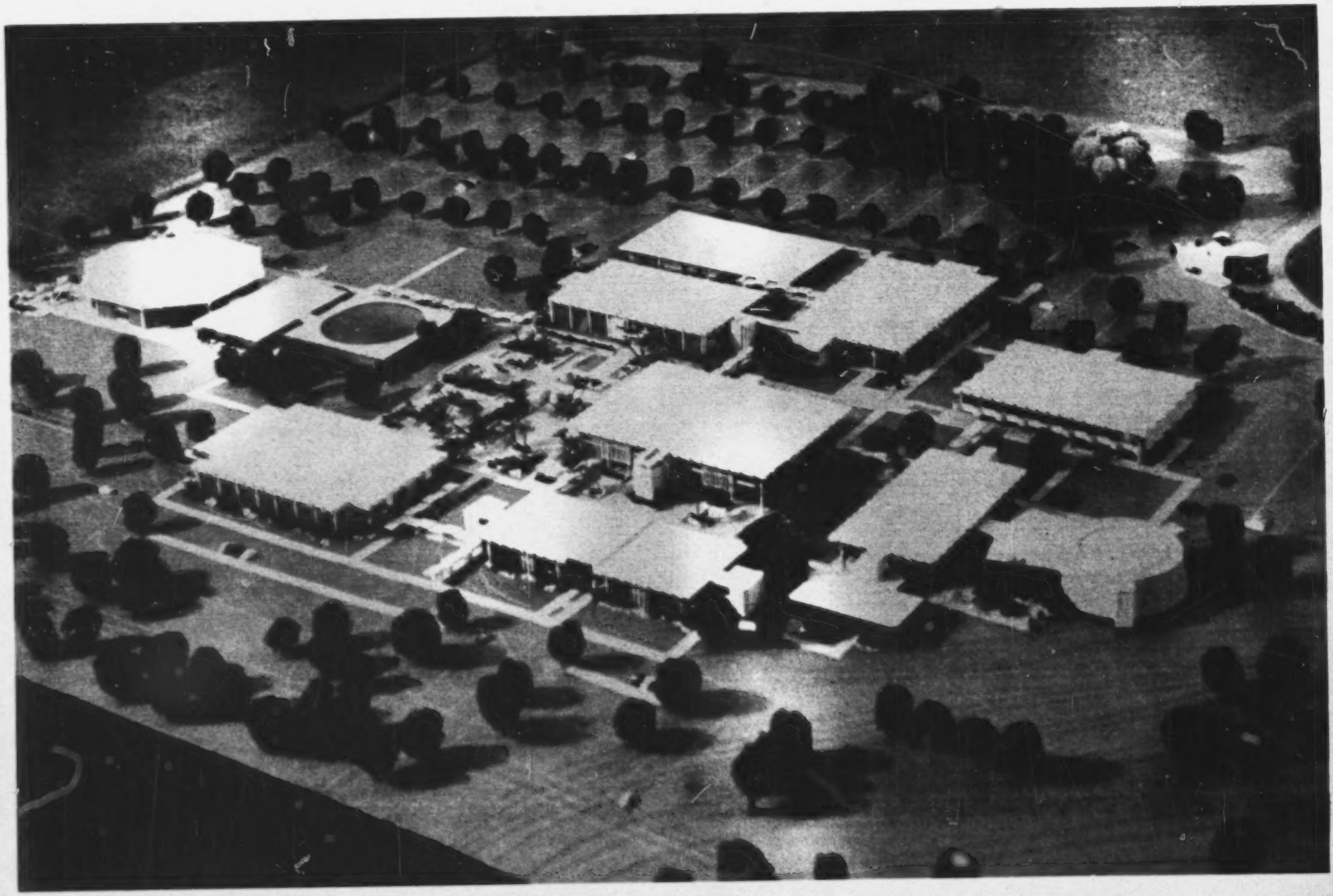
*** Visitor Parking.

On the basis of the factors enumerated, a total of 2,813 spaces will be designed.

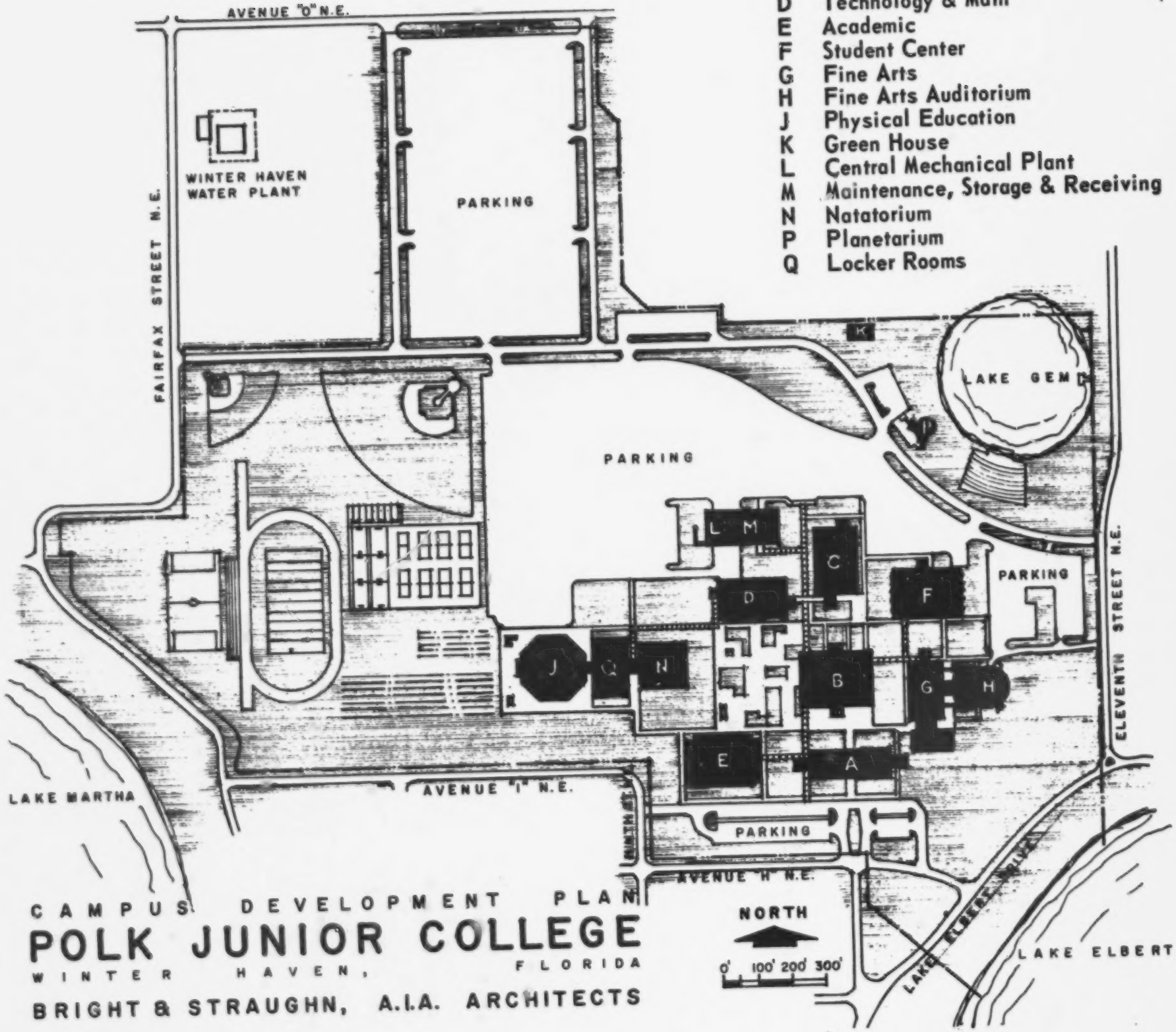
Homeowners around the perimeter will be taken into consideration since most of them located while the site was still used as a golf course. Although it is anticipated that the parking will occupy "prime land" it is felt that the best arrangement for the campus (and the neighbors) is to use interior portions of the site for parking.

MASTER PLAN, PHASING AND COST ANALYSIS

PHOTOGRAPH OF MODEL



A Administration & Classrooms
B Learning Resources Center
C Science
D Technology & Math
E Academic
F Student Center
G Fine Arts
H Fine Arts Auditorium
J Physical Education
K Green House
L Central Mechanical Plant
M Maintenance, Storage & Receiving
N Natatorium
P Planetarium
Q Locker Rooms



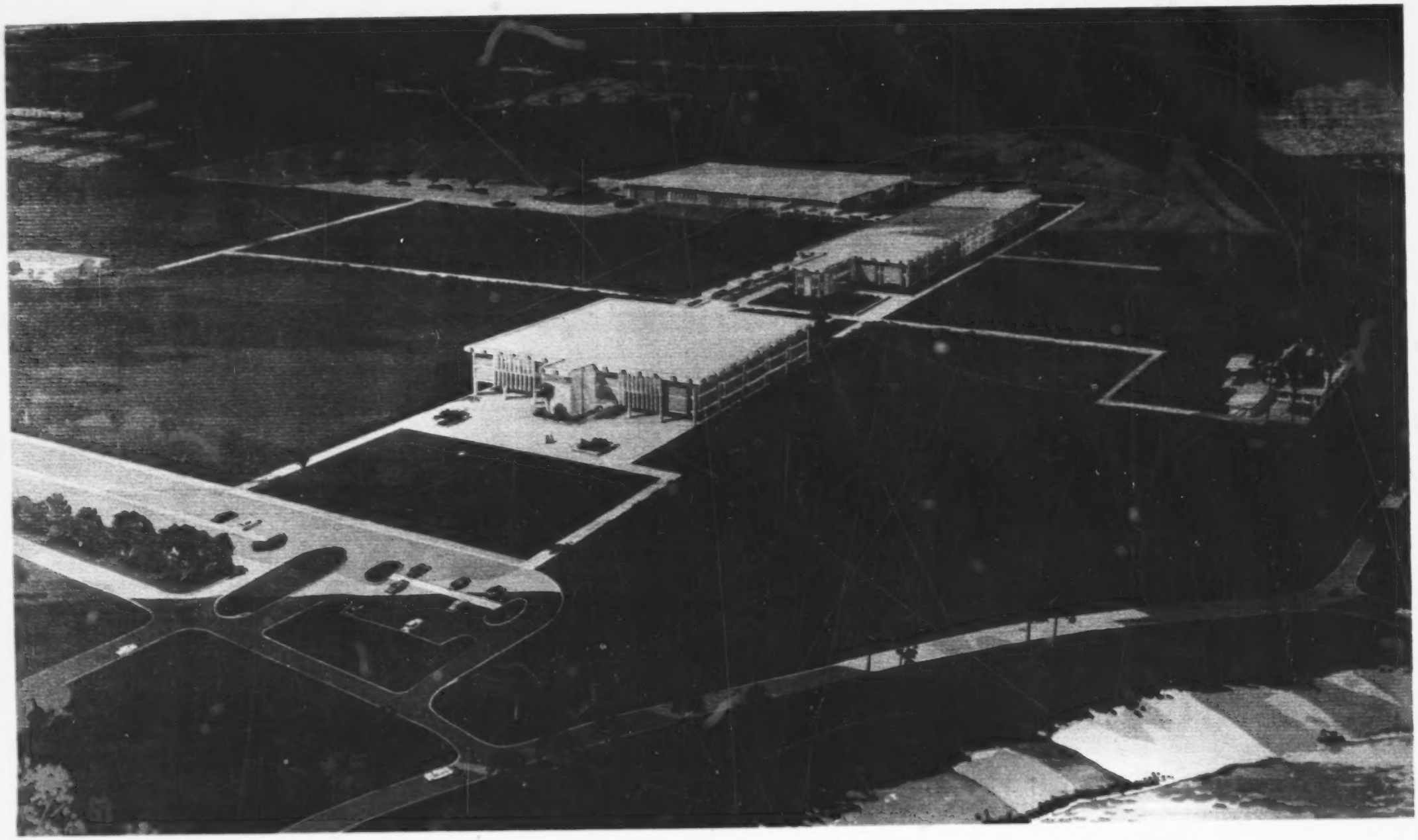
CAMPUS DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

WINTER HAVEN, FLORIDA

BRIGHT & STRAUGHN, A.I.A. ARCHITECTS

FIRST PHASE



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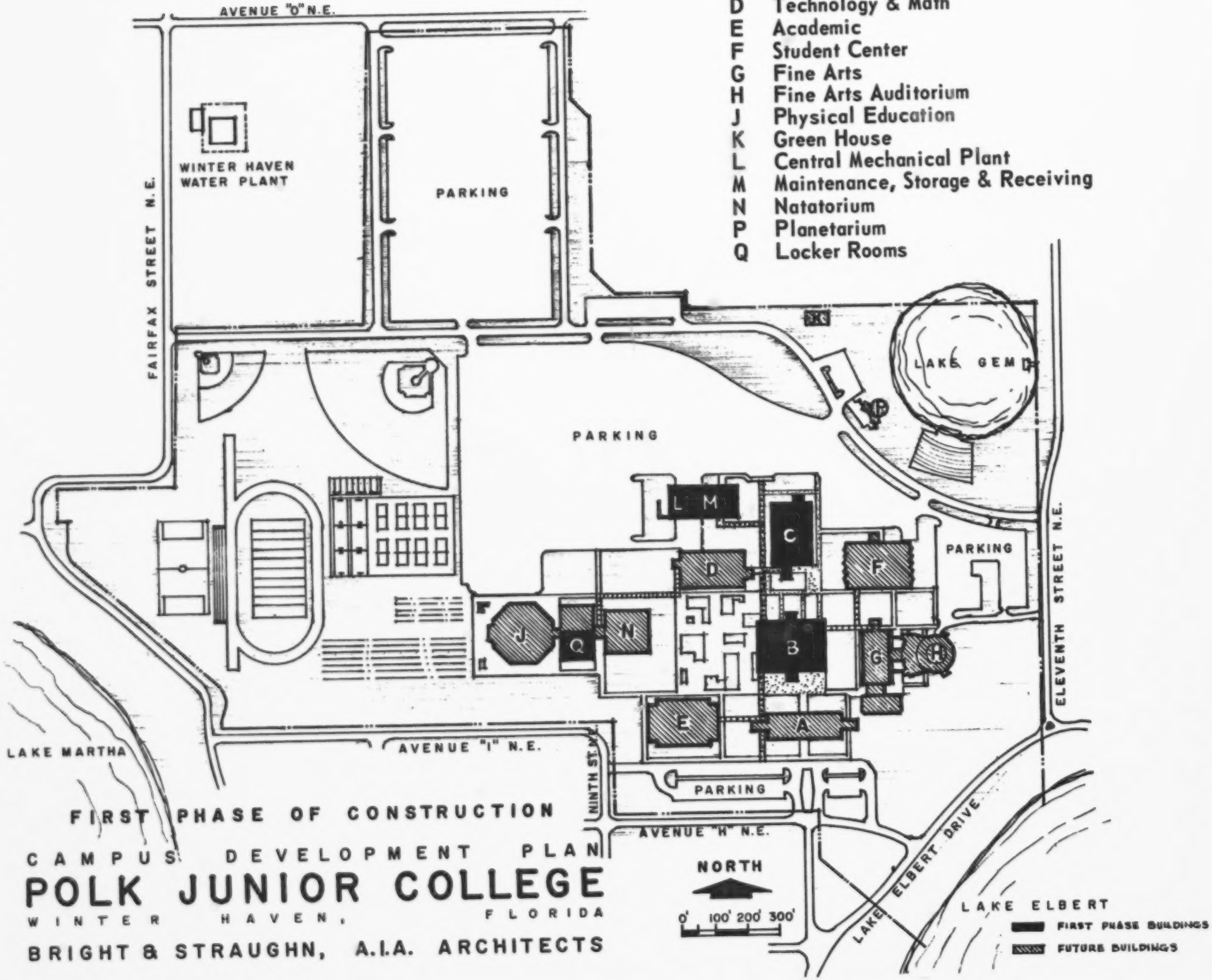


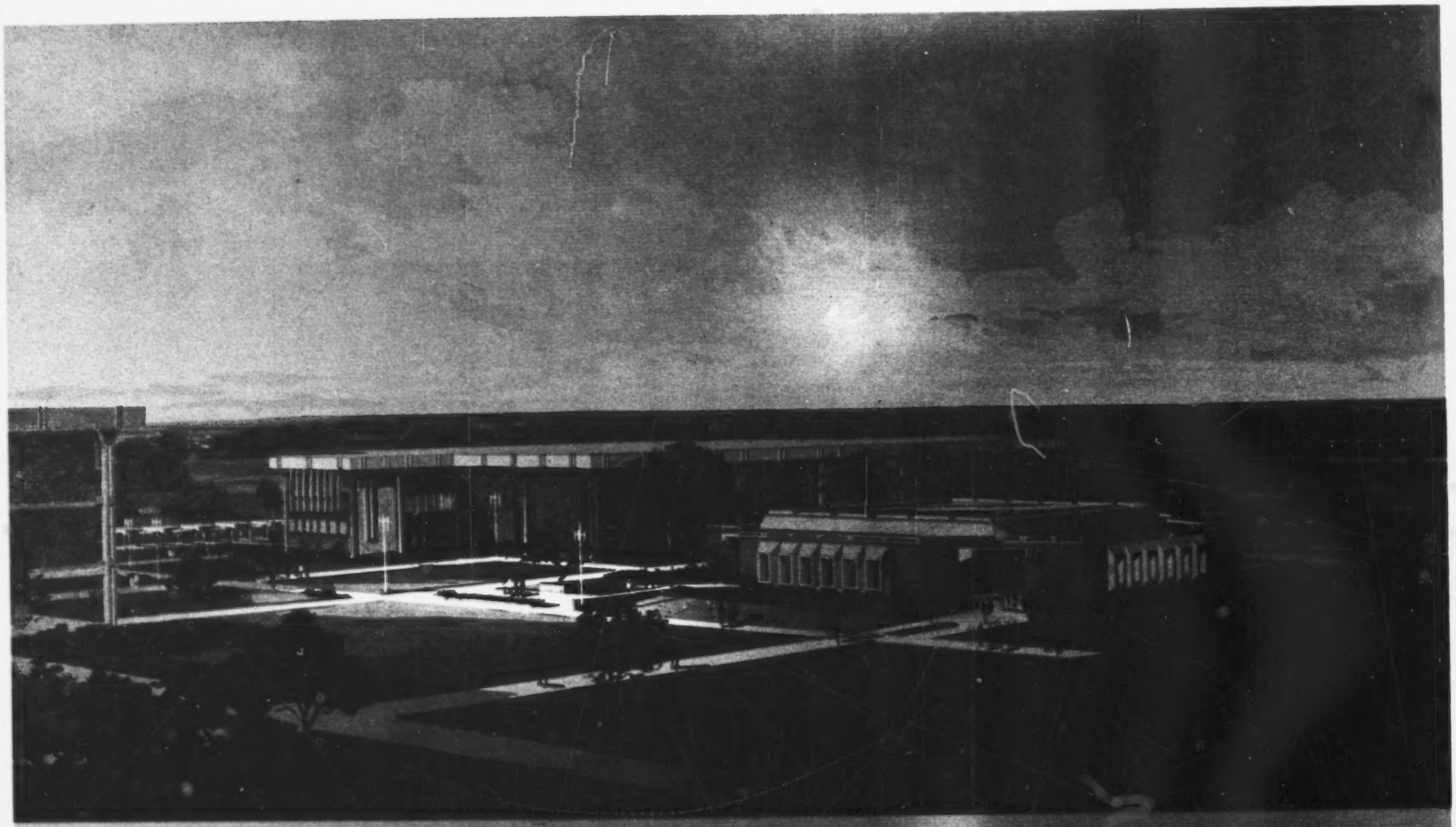
FIRST PHASE OF CONSTRUCTION

CAMPUS DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

WINTER HAVEN, FLORIDA

BRIGHT & STRAUGHN, A.I.A. ARCHITECTS



FIRST PHASE OF STUDENT CENTER
POLK JUNIOR COLLEGE
WINTER HAVEN, FLORIDA
BRIGHT & STRAUBMUL AIA ARCHITECTS

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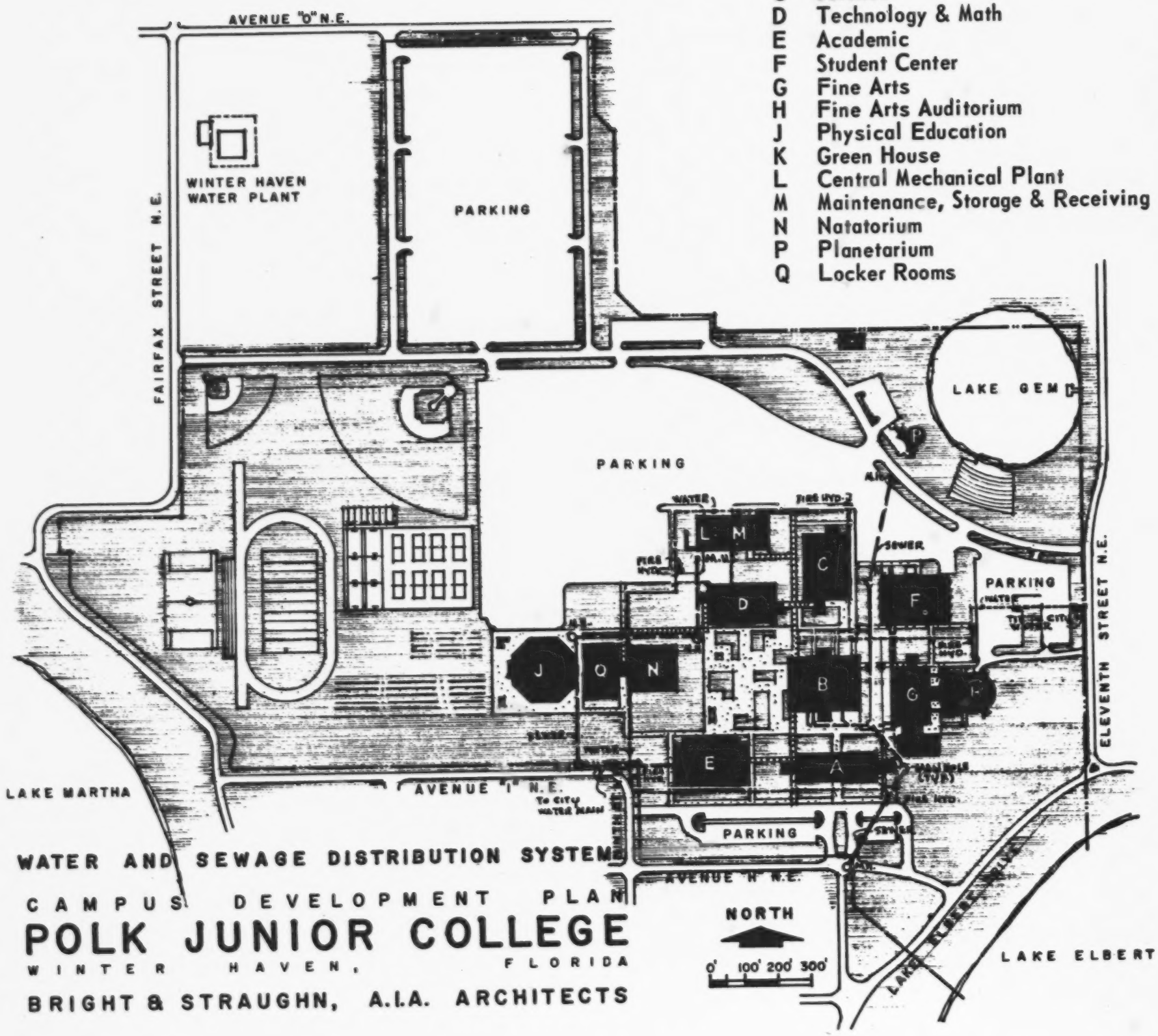
---- WATER
---- SEWER



WATER AND SEWAGE DISTRIBUTION SYSTEM

CAMPUS DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

WINTER HAVEN, FLORIDA

BRIGHT & STRAUGHN, A.I.A. ARCHITECTS

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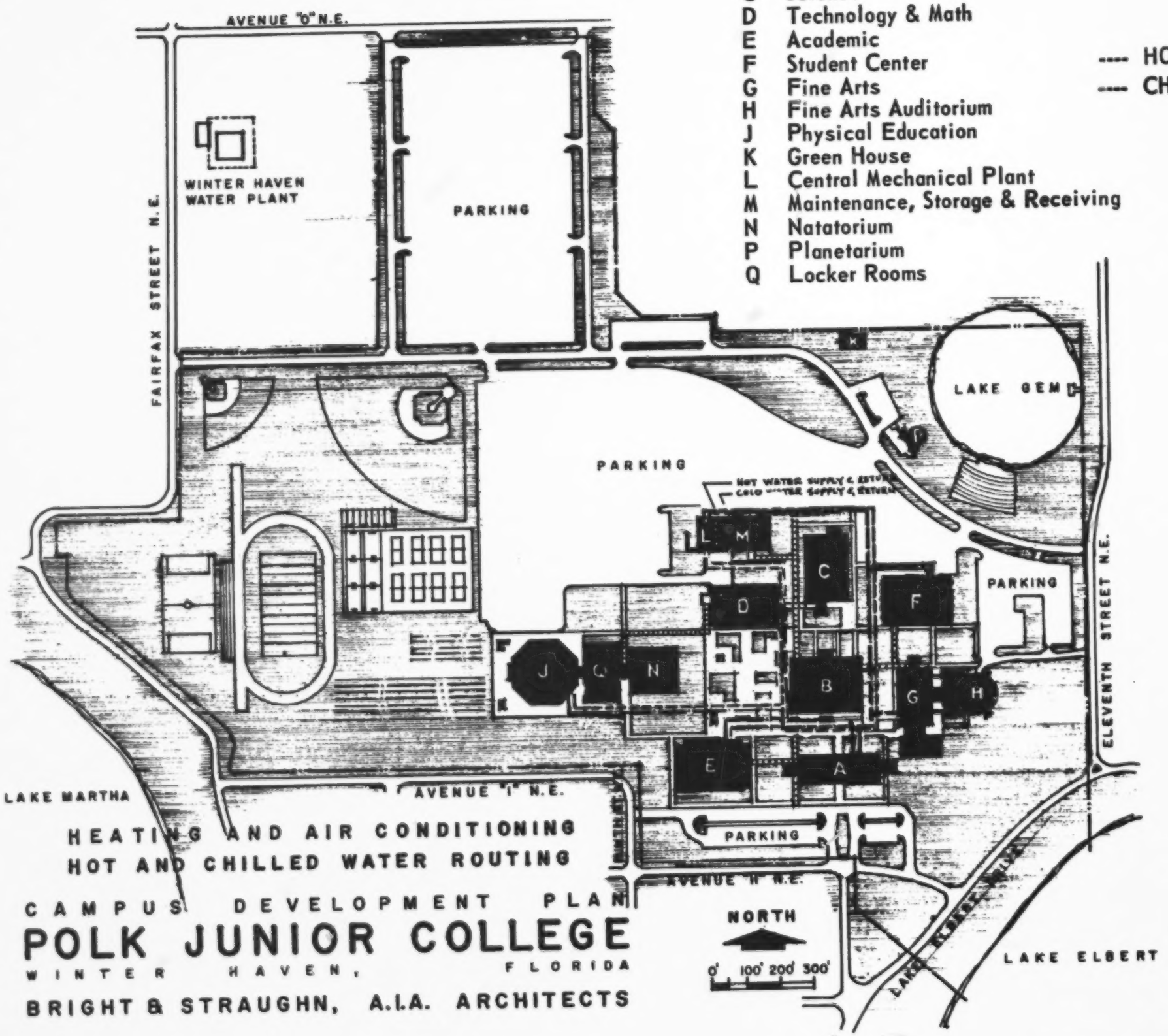
---- HOT WATER
---- CHILLED WATER



HEATING AND AIR CONDITIONING
HOT AND CHILLED WATER ROUTING

CAMPUS DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

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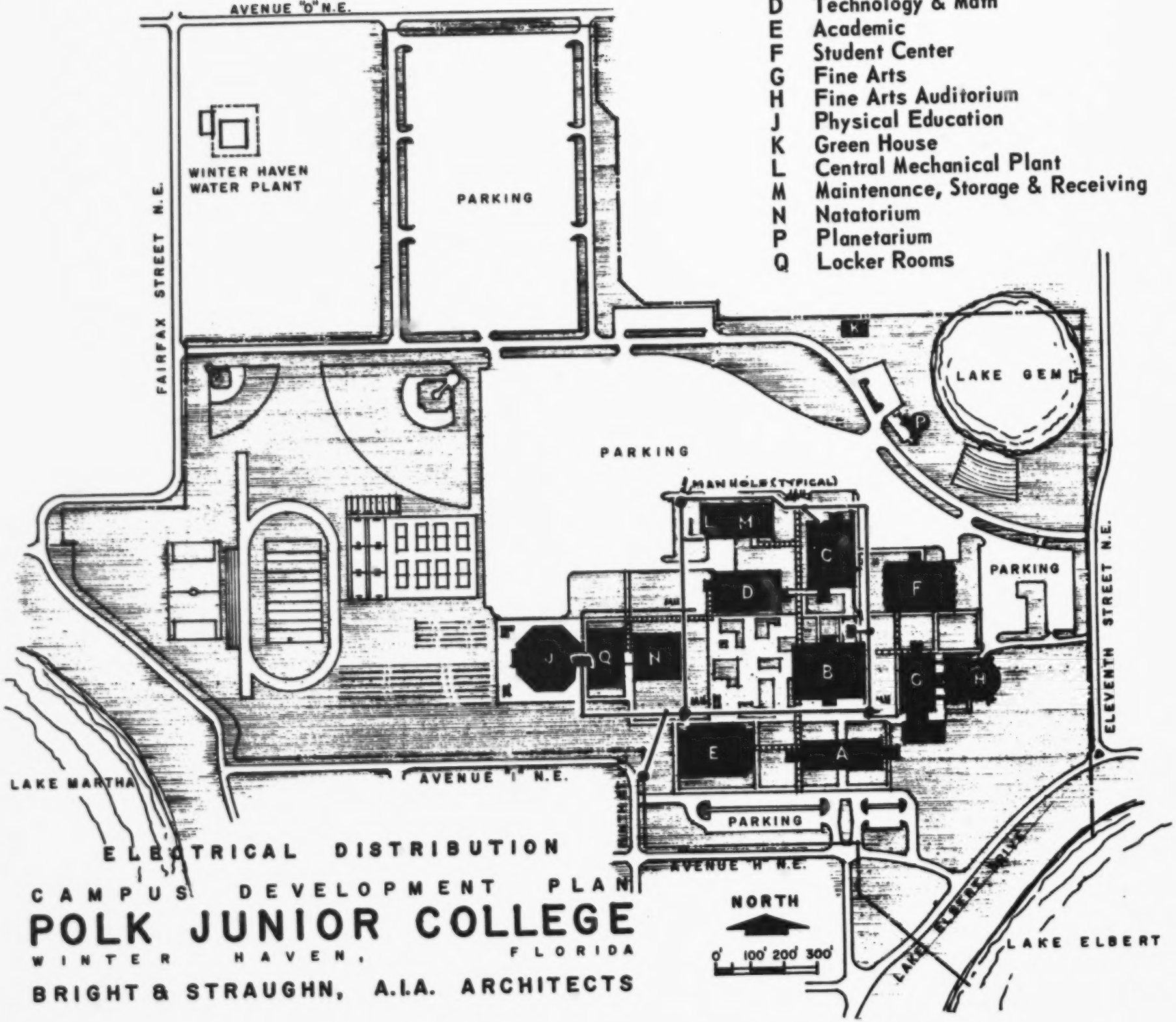

ELECTRICAL DISTRIBUTION

CAMPUS DEVELOPMENT PLAN

POLK JUNIOR COLLEGE

WINTER HAVEN, FLORIDA

BRIGHT & STRAUGHN, A.I.A. ARCHITECTS

HIGHER EDUCATION IN POLK COUNTY

Capital funds come from state sources. The amount appropriated depends on a formula based on the number of full-time students enrolled. It is possible for several years to elapse between the enrollment of students and the occupancy of the completed new structure. The time involved is used in setting of state appropriations, selling state bonds, planning and construction of new buildings. Because of the time lag, and because full funds are not available initially for the complete campus at one time, two plans for use of structures must be completed prior to the beginning of construction.

A determination of how available funds are to be used constitutes the proposed phasing.

PHASE I

Learning Resources (Building B)	$1,330,000
Science (Building C)	800,000
Maintenance & Receiving (Building LM)	280,000
Shower & Locker Facility (Building Q)	140,000
Walkways and Covered Walks	50,000
Total for Construction	2,600,000
Furnishings & Equipment	400,000
Paving, Drainage, Lighting & Site Improvement, and Fees	266,756
Total for Phase I	**$3,266,756**

PHASE II

Student Center (First phase) F-1	$ 180,000
Student Center (Second phase) (Building F)	850,000
Health & P. E. (Building J)	1,000,000
Fine Arts (Building G)	600,000
Fine Arts Auditorium (Building H)	700,000
Furnishings & Equipment	600,000
Paving, Walkways, Lighting, Playing Fields, and Fees	550,000
Total for Phase II	**$4,480,000**

PHASE III

Administration (Building A)	$ 700,000
Classroom (Building E)	915,000
Technology (Building D)	675,000
Total for Construction	2,290,000
Furnishings and Equipment	342,000
Paving, Walks, Lighting & Fees	468,000
Total for Phase III	**$3,000,000**

PHASE IV

Greenhouse (Building K)	$ 30,000
Natitorium (Building N)	800,000
Planetarium (Building P)	100,000
Amphitheatre (Lake Gem)	50,000
Paving, Walks, Lighting & Design Fees	300,000
Total for Phase IV	**$1,280,000**

TOTAL COST OF WINTER HAVEN CAMPUS $12,026,756

BRIGHT & STRAUGHN, A.I.A., ARCHITECTS

LAKELAND, FLORIDA